

REMARKS

In the Office Action, claims 1, 3, 5-10, 13, 15-21, 23, 26, 28 and 30-37 were rejected. Claims 20 and 26 are amended by this Response. Reconsideration and allowance of all pending claims is requested.

Rejections Under 35 U.S.C. § 112

The Examiner rejected a number of the claims as reciting subject matter not clearly described or shown in the Application.

The Examiner rejected claim 1 based on a failure to describe “bypass relay” and “bypass relay having a relay coil and a third set of contacts”. Applicants respectfully submit that the specification in numerous places describes the use of a bypass contactor. See, e.g., Detailed Description at pages 6-11 (referred to by reference numerals 47 and 70). Furthermore, it is commonly understood within the art that a contactor refers to a relay used to switch power through its contacts. See, e.g., http://www.allaboutcircuits.com/vol_4/chpt_5/2.html. Therefore, the term bypass relay in the claims would be readily understood in the art as interchangeable with “bypass contactor” described in the specification.

Regarding the second phrase, a relay or contactor is commonly understood to contain coils and contacts. Therefore, the phrase “bypass relay having a relay coil and a third set of contacts” simply establishes the basis for reference (antecedent basis). In addition, Figures 3-5 of the Application illustrate several relay coils including elements 78 and 70, with element 70 representing the coils of the bypass relay. Indeed, coil 70 is clearly labeled “BP” for “bypass,” and would be readily understood as controlling opening and closing of contacts 47 (clearly labeled “BP” for “bypass”).

The Examiner rejected claim 5 based on a failure to describe “relay coil” and fourth contact. The relay coil recited in claim 5 is clearly the same relay coil 70 of claim

1. The fourth contact recited in claim 5 is described in the specification as element 76. See, e.g., Figure 3. Contacts 76, when opened, interrupt power to coil 70 to open contacts 47 ("BP") when contacts 52 and 54 are closed (by operation of switch 116, labeled "TR"), as required by the claim.

The Examiner rejected claim 6 based on a failure to describe "bypass relay" and "a fourth contactor [sic] to de-energize the bypass relay." Applicants note that the claim actually refers to a "contact" rather than a "contactor". This structure is discussed above with respect to claim 5. The "bypass relay" is as described above with respect to claim 1.

The Examiner rejected claims 10, 15, 16, 20, 34 and 37 based on a failure to describe a "bypass relay." Applicants note, as with claim 1 above, that the term bypass relay would be understood by those of ordinary skill in the art by reference to the specification, particularly to the elements designated 47 and 70, also clearly shown in Figures 3-5.

Claim 26 has been cancelled making its rejection on this ground moot.

The Examiner rejected claims 28 and 30 based on a failure to describe a "relay" in the specification. However, as discussed above, Applicants note that the term relay is well understood within the art as synonymous with the described "contactor". As indicated in Figures 3-5, the relay comprises of coil 70 and contacts 47 can be utilized to "couple the power source directly to the motor."

The Examiner rejected claim 31 based on a failure to describe a "bypass relay having a coil and a set of bypass contacts" and a "coil." However, as noted with respect to claim 1, the term "bypass relay" would be understood in the art from the description and Figures, and the term bypass contacts refers to those contacts associated with the bypass relay "BP". As noted above, the bypass relay contains a coil, and both "a coil"

and “the coil” refer to the same coil 70 which is a part of the bypass relay recited in the claim.

The Examiner rejected claim 35 based on a failure to describe the terms “bypass relay” and “bypass relay coil.” Applicants respectfully note that the term bypass relay is as described in the discussion above, and the term bypass relay coil clearly refers to the coil 70 that is part of the bypass relay.

The Examiner rejected claim 36 based on a failure to describe the terms “bypass relay coil” and “coil of the control relay.” Applicants note that the term control relay is described repeatedly throughout the specification, and relays are generally understood to have coils. Furthermore, as discussed above with respect to the bypass relay coil, this merely refers to that part of the bypass relay (“bypass contactor”) that is a coil.

Claims 3, 7-9, 13, 17-19, 21, 23 and 33 were rejected by the Examiner based on their dependence on rejected independent claims. Applicants respectfully submit that insofar as the rejections above have been traversed with respect to 35 U.S.C. § 112, the rejection with respect to these claims has been overcome.

Based on the remarks above, Applicants respectfully request that the Examiner withdraw the rejection to these claims based on 35 U.S.C. § 112.

Rejections Under 35 U.S.C. § 102

Applicants note that the Examiner did not reject claims 6, 7, 10, 13, 15-19, 23, 26, 30, 32, 34-37 based on prior art, and consider therefore that these claims are in condition for allowance based on the remarks above with respect to 35 U.S.C. § 112. Of these, claims 10 and 37 are independent.

Of the claims rejected as anticipated by Owen, claims 1, 20, 28 and 31 are independent. A *prima facie* case of anticipation under 35 U.S.C. § 102 requires a showing that each limitation of a claim is found in a single reference, practice or device. *In re Donohue*, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

With respect to the Owen reference, Applicants respectfully point out that Owen does not disclose or suggest all of the recitations of at least independent claims 1, 20, 28 and 31. In particular, Owen does not teach a bypass contactor, or relay or switch as claimed. Indeed, Owen does not disclose an operator as recited in the claims, does not utilize any relays, and thus does not utilize relay coils.

The Examiner identified the element “x1” of the Owen reference as a relay, and the winding 10 in that reference as a coil. Applicants respectfully point out that the winding 10 is part of a transformer, which serves a completely different function from that of a relay coil. A transformer is used to convert one voltage to another voltage, and a relay is a control element that acts essentially as a switch.

Claim 1 and the claims dependent therefrom.

Claims 1 recites a bypass switch and a bypass relay. Based on the common understanding of bypass switches and relays, it is clear that the item marked x1 in Figures 1a and 2 of the Owen reference is not a relay, coil, or any part thereof. The point marked x1 in Figure 1a of Owen is merely a connection point from the transformer to other circuitry. Furthermore, Applicants note that Figure 1a of Owen illustrates the connection between several transformers, and thus the winding marked 10 in that figure is not and cannot be a relay coil.

Addressing the Examiner’s classification of the switch 50 of Owen as an operator, it is clear that switch 50 does not control a first and second set of contacts. As noted in the Owen reference at column 4, lines 25-46, switch 50 is distinct from switch 46.

Therefore, the Owen reference does not describe an operator as recited in claim 1 of the present Application.

In view of at least these distinctions, Applicants respectfully request that the rejection based on 35 U.S.C. § 102 be withdrawn with respect to claim 1 and its dependents.

Claim 20 and the claims depending therefrom.

Claim 20 similarly recites a bypass relay, in conjunction with a motor drive and motor control system. Applicants respectfully note that Owen does not recite the usage of such a relay, or any similar device. Therefore, the Owen reference cannot anticipate claim 20. Applicants respectfully request that the rejection with respect to claim 20 and its dependents be withdrawn.

Claim 28 and the claims depending therefrom.

Claim 28 recites a method based upon operation of a relay and manually-operated switch to uncouple a variable frequency drive from a power source and to couple a motor directly to the power source. Applicants note that the switch 50 of the Owen reference does not couple a power source to a variable frequency drive *and* electrically couple the variable frequency drive to a motor. The switch 50 of the Owen reference couples a power source to a conventional frequency converter and motor controller, but does not couple anything to a motor. For that same reason it also does not uncouple anything from a motor. Furthermore, as noted above, the Owen reference does not utilize any relays, and thus cannot suggest to “close a relay” as recited in this claim. For these reasons, Applicants respectfully request that this rejection be withdrawn, and that claim 28 and its dependent claim 30 be allowed.

Claim 31 and the claims depending therefrom.

Claim 31 recites, *inter alia*, a bypass switch and a bypass relay that couple and uncouple a variable frequency drive between an external power source and a motor. As noted above with respect to claim 1, the Owen reference does not describe or suggest the use of a bypass relay or switch, and thus cannot anticipate this claim. In addition, Owen lacks a relay coil, and does not describe the use of a variable frequency drive. For at least these reasons, Applicants respectfully request that the rejection be withdrawn with respect to this claim, and that claim 31 and its dependent claims 32-36 be allowed.

Conclusion

In view of the remarks set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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Pg
Patrick S. Yoder
Reg. No. 37,479
FLETCHER YODER
P.O. Box 692289
Houston, TX 77269-2289
(281) 970-4545

CORRESPONDENCE ADDRESS

ALLEN-BRADLEY COMPANY, LLC
Patent Department/704P Floor 8 T-29
1201 South Second Street
Milwaukee, Wisconsin 53204
Attention: Mr. Alexander Gerasimow
Phone: (414) 382-2000